

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

VOLTERRA SEMICONDUCTOR
LLC,

Plaintiff,

v.

MONOLITHIC POWER SYSTEMS,
INC.,

Defendant.

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) **Redacted - Public Version**
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) C.A. No. 19-2240-CFC-SRF
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**DEFENDANT MONOLITHIC POWER SYSTEMS, INC.'S
BRIEF IN SUPPORT OF THEIR MOTION
FOR SUMMARY JUDGMENT (NO. 2)
(NO INDUCED OR WILLFUL INFRINGEMENT
FOR THE '408 AND '955 PATENTS)**

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I. NATURE AND STAGE OF PROCEEDINGS

Volterra's Complaint alleges infringement of three patents: U.S. Patent No. 6,362,986, 7,525,408 and 7,772,955. D.I. 071. Fact and expert discovery are complete, and trial will be scheduled when the dispositive motions are decided.

II. SUMMARY OF THE ARGUMENT

Summary judgment of no knowledge of the '408 and '955 patents, and thus no induced or willful infringement, should be granted. MPS first became aware of the '408 and '955 patents through Volterra's initial Complaint. As a matter of law, Volterra's Complaints cannot provide the required knowledge for inducement or willful infringement. Volterra attempts to circumnavigate this fault in its pleadings by alleging that MPS was either willfully blind to, or had constructive pre-suit knowledge of, the '408 and '955 patents in view of discussions and citations pertaining to the '986 patent. But the '986 patent is unrelated to the '408 and the '955 patents—it does not prove that MPS had knowledge of the '408 and '955 patents. Volterra's evidence is knowledge evidence is insufficient. Accordingly, no jury could find that MPS intended to induce infringement of either the '408 or '955 patents, or that any infringement was willful.

III. STATEMENT OF FACTS

In its Second Amended Complaint, Volterra alleges that MPS had pre-suit knowledge of the '408 and '955 patents. D.I. 71, ¶¶45, 63. However, Volterra's allegations are based on knowledge of the '986 patent—not specific knowledge of

the '408 and '955 patents. *Id.* The '986 patent is not in the same patent family as either the '408 or '955 patents, and is in fact prior art to those patents. *Compare* Ex. 8 with Ex. 9 and Ex. 10.

MPS concedes it had pre-suit knowledge of the '986 patent. Ex. 7, p. 10. However, MPS has maintained that it lacked pre-suit knowledge of the '408 and '955 patents. In response to Volterra's interrogatories, MPS confirmed that it "first became aware of them as of the service date of the Complaint." *Id.* MPS deponents confirmed this. *See e.g.*, Ex. 14, 108:13-20; 111:11-23; Ex. 11, 73:14-17; 74:24-75:02; 76:05-15.

Volterra's pre-suit knowledge allegations are based off: (1) a notification from component manufacturer [REDACTED] (2) discussions with [REDACTED] (3) discussions with a NVIDIA engineer; (4) Dr. Jinghai Zhou's and Dr. Yan Dong's dissertations; and (5) Volterra's reputation. *Id.* Volterra's operative Infringement Contentions incorporate the above allegations. Ex. 5, p. 25-38.¹ Volterra interrogatory responses do too. Ex. 6, p. 5-18. Volterra also generally identifies deposition transcripts for Dawson Huang, Bernie Blegen, Roland Tso, Jinghai Zhou, and Ahmed Abou-Alfotouh, but does not specify any testimony in these transcripts that supports its allegations. Ex.

¹ Volterra's proposed Amended Infringement Contentions have not been admitted but contain no substantial differences in this respect. Ex. 2, pp. 25-38.

6, p. 18. The facts regarding each of Volterra's five allegations are addressed further below.

First, regarding the notification from [REDACTED] [REDACTED] [REDACTED] Ex. 11, 45:20-24 and Ex. 12. Neither the '408 nor '955 patent were referenced—only the '986 patent. Ex. 12. [REDACTED] [REDACTED] Ex. 11, at 63:02-15; Ex. 13.

Second, regarding the discussions with Intel, MPS pitched [REDACTED] a coupled-inductor based solution, although [REDACTED] settled on using discrete inductors. Ex. 14, 86:03-90:13, 96:8-23; Ex. 7, p. 68, 73, and 75. No witnesses from [REDACTED] were deposed regarding these discussions, and no MPS witness recalled [REDACTED] informing MPS about the '408 or '955 patents. Ex. 14, 90:21-91:10.

Volterra identified Rizwan Khalid as the source of its allegation that [REDACTED] informed MPS of Volterra's portfolio. Mr. Khalid's testimony identifies a [REDACTED] [REDACTED] [REDACTED] Ex. 15, 25:12-17; 33:7-38:7; 40:06-42:03, 44:15-19; *see also* Ex. 16. Importantly, this text chain makes no reference to any specific patents being discussed.

Third, regarding the discussions with a NVIDIA engineer, testimony from NVIDIA's former employee, Dr. Ahmed Abou-Alfotouh, indicates only that he spoke to Maxim/Volterra about its patents, not MPS. Ex. 17, 93:23-94:03. Dr. Abou-Alfotouh contacted Maxim/Volterra regarding its coupled inductor patents, and Maxim responded [REDACTED] on November 12, 2018. Ex. 17, 20:15-21:12, 22:24-26:4; Ex. 18. [REDACTED] Ex. 17, 194:20-24. [REDACTED] Ex. 15, 30:01-05.

Conversely, Dr. Abou-Alfotouh did not recall speaking with anyone at MPS regarding any specific Volterra patents. Ex. 17, 48:15-18, 93:23-94:03. MPS corroborated this, as Dr. Abou-Alfotouh's MPS contact, Mr. Huang, stated he had no knowledge of the '408 or '955 patents until his deposition. Ex. 14, 108:13-17; 111:11-17. The only specific patent that Mr. Huang discussed with NVIDIA was the '986 patent, [REDACTED]—not in response to a communication from Maxim/Volterra to Dr. Abou-Alfotouh. *Id.*, 121:24-122:19.

Fourth, regarding the dissertations, Volterra asserts that because Dr. Zhou cited papers in his dissertation over fifteen years ago written by the '408 and '955 patent listed inventors, MPS had or should have had knowledge of the '408 and '955

patents. D.I. 71, ¶¶ 45 and 63. But Dr. Zhou's dissertation does not cite either the '408 or '955 patents themselves. *See* Ex. 19, MAXIM_11507-11516. In fact, citing them would have been impossible—Dr. Zhou's dissertation is dated April 22, 2005, over four years *before* the issuance of the '408 and '955 patents on April 28, 2009 and August 10, 2010, respectively. *Compare* Ex. 19, MAXIM_11320 *with* Ex. 9 and Ex. 10.

Instead, Dr. Zhou's dissertation cites to papers that have overlapping authors and similar figures to the '408 and '955 patents. Ex. 19, MAXIM_11512, nn. 76-77. These citations were part of 135 citations, the vast majority of which were not related to Volterra or its IP. Ex. 19, MAXIM_11507-11516. Dr. Zhou testified that he did not recall either the '408 patent or '955 patents. Ex. 20, 166:20-24; 168:03-05.

Regarding Dr. Dong, MPS notes that Dr. Dong left MPS in 2016, whereas the earliest account of work that MPS did for the NVIDIA Power Solution began in 2018. *Compare* Ex. 21 (Dr. Dong's LinkedIn page) *with, e.g.,* Ex. 22 (March 14, 2018 email between MPS and Delta Electronics). Volterra has also seemingly dropped Dr. Dong's dissertation—it is not mentioned in Volterra's interrogatory requests or expert reports, and Volterra asked no questions regarding Dr. Dong's dissertation in the MPS employee depositions. *See generally* Ex. 7; *see also* Ex. 23, paras. 464-480.

Nevertheless, Dr. Dong's dissertation also does not contain any citations to the '408 or '955 patents, but instead only "cites to several papers by Mr. Sullivan." *See* Ex. 5, pp. 17-18, 20-21. Specifically, only six papers of over 80 citations. *See* Ex. 24, MAXIM_11040-11046 at nn. 14, 40-42, 53-54. And, like Dr. Zhou's dissertation, most of the citations are unrelated to Volterra's work. *See* Ex. 24 at MAXIM_11040-11046.

Fifth and finally, regarding Volterra's reputation in the power solution industry, while MPS was generally aware of the existence of Volterra as a company, MPS has maintained it was not familiar with Volterra's work or its products. Ex. 20, 113:10-21; Ex. 14, 49:22-50:06. Further coupled inductors are an old technology that long predates the asserted patents in this case. Ex. 20, 15:14-20; Ex. 14, 27:08-16. Even Dr. Zhou's dissertation was based off of previous work that the Center of Power Electronics at Virginia Tech had conducted. Ex. 20, 133:20-134:10.

IV. LEGAL STANDARD

Inducement is a two-prong test. First, the patentee must show (A) that a third party committed an act of direct infringement² and (B) that the defendant undertook an affirmative act during the enforceable term of the patent that aided or abetted the act that directly infringed the patent. *Power Integrations, Inc. v. Fairchild*

² This prong is further discussed in MPS's separate Motion for Summary Judgment regarding [REDACTED].

Semiconductor International, Inc., 843 F.3d 1315, 1332 (Fed. Cir. 2016). Second, the patentee must show, by a preponderance of the evidence, that the defendant (1) had actual or constructive knowledge of the asserted patent at the time it committed the inducing act, (2) knew or should have known that those inducing acts would result in direct infringement, and (3) had specific and actual intent to cause the acts which constitute the infringement. *Id.*; *see also* Ex. 25.

For willful infringement, “a patentee must prove, by a preponderance of the evidence, that an accused infringer took actions, with knowledge of the patent, and with the intent of infringing the patent. The inquiry is directed to the ‘subjective willfulness’ of the infringer, not whether the infringement itself was ‘egregious.’” *bioMerieux, S.A. v. Hologic, Inc., C.A.*, No. 18-21-LPS, 2020 WL 759546, at *11 (D. Del. Feb. 7, 2020); *see also Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S. Ct. 1923, 1932 (U.S. 2016) (noting that a finding of willful infringement is “generally reserved for egregious cases of culpable behavior”). The infringer’s mere knowledge of the patent is insufficient, and the Supreme Court emphasized that the patentee must show that with the knowledge—actual or constructive—the infringer recklessly disregarded the patentee’s rights. *Halo*, 136 S. Ct. 1923, at 1936 (U.S. 2016); *see also Ansell Healthcare Products LLC v. Reckitt Benckiser LLC*, 2018 WL 620968, *6-*8 (D. Del. 2018) (finding that willful blindness only establishes

knowledge of the patent, not whether the accused infringer's behavior was egregious).

V. ARGUMENT

A. Volterra's Complaints Cannot Be the Source of Knowledge for Inducement or Willfulness

As a matter of law “the complaint itself cannot be the source of the knowledge required to sustain claims of induced infringement and willfulness-based enhanced damages.” *ZapFraud, Inc. v. Barracuda Networks, Inc.*, 2021 WL 1134687, at *3-5 (D. Del. Mar. 24, 2021); *see also bioMerieux*, 2020 WL 759546, at *13. As this Court represented at the September 10, 2020, Scheduling Conference, the service of Volterra's initial complaint cannot be found to be grounds to establish MPS's post-suit knowledge. *See* Ex. 26 at 19:24-20:03 (“if you're trying to allege induced and contributory infringement based on the service of the complaint, . . . but in my mind, I don't think you have a case”). Volterra's position otherwise, that its complaint suffices as grounds to demonstrate MPS's knowledge of the patents post-suit, runs contrary to this Court's guidance.

B. MPS Lacked Actual Pre-Suit Knowledge of the '408 and '955 Patents

Both inducement and willfulness require that the defendant had knowledge of the asserted patents, and the related alleged direct infringement. Volterra failed to establish the actual knowledge element for either allegation. Indeed, MPS lacked

actual knowledge of either the '408 or '955 patents until the filing of the complaint. Ex. 7, p. 10.

There is no evidence with which Volterra can establish pre-suit knowledge of either the '408 or the '955 patents. The testimonies of MPS and NVIDIA employees both support the fact that MPS first became aware of both patents when Volterra first filed the initial complaint, and that neither Volterra/Maxim nor a third party raised either the '408 or '955 patents with MPS before the lawsuit. *See e.g.*, Ex. 14, 108:13-20; 111:11-23; Ex. 11, 73:14-17; 74:24-75:02; 76:05-15; Ex. 17, 48:15-18; 93:23-94:03.

Because MPS lacked the required pre-suit knowledge of the '408 and '955 patents, no jury can find that MPS induced infringement of either patent, nor willfully infringed, and thus summary judgment of no pre-suit inducement and no willfulness is warranted. *See bioMerieux*, 2020 WL 759546, at *13.

C. MPS Also Lacked Constructive Pre-Suit Knowledge of the '408 and '955 Patents

Finally, MPS similarly lacked constructive pre-suit knowledge, and was not willfully blind to the '408 and '955 patents. Willful blindness has two requirements: “(1) the defendant must subjectively believe that there is a high probability that a fact exists and (2) the defendant must take deliberate actions to avoid learning of a fact.” *Ansell*, 2018 WL 620968, at *6. The willful blindness requirement for inducement surpasses the standard for recklessness and negligence, requiring that an

alleged infringer “takes deliberate actions to avoid confirming a high probability of wrongdoing and who can almost be said to have actually known the critical facts.” *Global-Tech Appliances, Inc. v. Seb S. A.*, 563 U.S. 754, 769 (2011). Further, “insofar as willful blindness does apply in willful infringement cases, it only substitutes for actual knowledge, as opposed to egregious behavior.” *Id.* at *7; *see also Intel Corp. v. Future Link Sys., LLC*, 268 F. Supp. 3d 605, 623 (D. Del. 2017).

Volterra cannot prove that MPS had constructive knowledge of the '955 and '408 patents—and even further, failed to allege whether the constructive knowledge was sufficient to support a finding of specific intent or egregious behavior. Instead, Volterra argues that discussions and citations relating to the Volterra patent portfolio generally, and the earlier '986 patent specifically, can provide transitory knowledge of subsequent, unrelated patents, such as the '408 and '955 patents. But this kind of unfocused allegation of knowledge is woefully insufficient to meet the required knowledge standards. Indeed, the '986 patent is not even in the same patent family as either the '408 or '955 patents, but instead predates (and is prior art to) those patents. *Compare* Ex. 8 with Ex. 9 and Ex. 10. Knowledge of one patent in a portfolio cannot be read to imply that MPS had or should have had knowledge of all the other patents in the same portfolio. *See Licensing v. Apple Inc.*, No. C -14-04275-EDL (N.D. Cal. Mar. 13, 2015) (finding that an accused infringer's knowledge of a patent

portfolio generally is insufficient to allege that the infringer had pre-lawsuit knowledge of the specific patents-in-suit).

Volterra, in its complaint and contentions, alleges knowledge of the '408 and '955 patent could be inferred from one of five sources, as detailed above: (1) [REDACTED] notifications; (2) [REDACTED] discussions; (3) NVIDIA discussions; (4) MPS employee dissertations; and (5) Volterra's reputation. Ex. 5, p. 25-38. None of these support a finding of constructive knowledge or willful blindness.

First, the discussions between MPS and [REDACTED] fail to reference the '408 or '955 patents at all. Ex. 12. Rather, these communications reference the '986 patent only. Further, MPS did not take deliberate action to blind itself after [REDACTED] identified the '986 patent; rather, MPS investigated and prepared an invalidity opinion for the identified '986 patent. As the '986 patent is unrelated to the '408 or '955 patents, and predates them, MPS could not and did not discover the '408 or '955 patents as part of that search, but MPS's actions were the opposite of willful blindness.

Second, Volterra pivots to discussions between MPS and [REDACTED] but relies on inadmissible hearsay allegations which themselves do not even specify knowledge of *any* patent. Volterra points to the deposition of its own employee, Rizwan Khalid, as evidence that [REDACTED] and MPS discussed the Maxim/Volterra portfolio. But Mr. Khalid has no personal knowledge of any such discussions. Instead, Mr. Khalid testified that he learned, based on a text conversation from [REDACTED] that someone was

[REDACTED], who he speculated was MPS. Ex. 15, 25:12-17; 33:7-38:7; 40:06-42:03; *see also* Ex. 16. Not only is this impermissible hearsay, but nothing in these messages suggests that MPS knew of the '408 or '955 patents specifically. *Id.* Indeed, MPS's witness, Mr. Huang, testified he did not recall if [REDACTED] raised any specific patent with MPS, and Volterra did not depose any witnesses from [REDACTED] Ex. 14, 90:21-91:10.

Third, Volterra's allegations that knowledge of the patents was conveyed through NVIDIA are based on communications between Maxim/Volterra and NVIDIA, not MPS. While Maxim/Volterra did specifically mention it owned the '408 or '955 patents to NVIDIA, MPS was not part of or privy to such conversations. Specifically, Dr. Abou Alfotouh at NVIDIA discussed Volterra's coupled inductor IP with Maxim and [REDACTED] [REDACTED] on November 12, 2018. Ex. 17, 20:15-21:12, 22:24-26:4; Ex. 18. Neither Volterra's witness nor NVIDIA's witness, however, could recall if anything was done [REDACTED] [REDACTED]—such as further communicating with MPS. Ex. 15, 30:01-05; Ex. 17, 194:20-24.

And, while MPS acknowledges that there may have been discussions with third parties about Volterra's patent portfolio generally, such discussions are insufficient to establish the prerequisite knowledge for willfulness or inducement.

See Finjan, Inc. v. Juniper Networks, Inc., No. C 17-05659 WHA (N.D. Cal. Feb. 14, 2018). at *5 (discussing purported infringement of Plaintiff's patent portfolio hardly translates to specifically alerting Defendant to infringement of the patents-in-suit).

Fourth, Volterra's reliance on Dr. Zhou's personal dissertation³, authored before he was employed at MPS, also fails to provide constructive knowledge of the '408 and '955 patents. Although Dr. Zhou's dissertation cites the '986 patent, none of the dissertation, the '968 patent, nor any of the 135 other citations contains any mention of the '955 or '408 patents. Ex. 19, MAXIM_11507-11516. Indeed, Dr. Zhou's dissertation predates the '408 and '955 patents, so he could not possibly have had knowledge of them from that dissertation. *Compare* Ex. 19, MAXIM_11320 *with* Ex. 9 *and* Ex. 10.

Fifth, and finally, Volterra's reliance on its reputation in the industry as support that MPS should have been aware of Volterra's patents is misplaced. MPS does not have a duty "to seek out every reference" from a competitor as "that would place too high a burden on manufacturers to avoid a finding of willful blindness." *Suprema, Inc. v. Int'l Trade Comm'n*, 626 F. App'x 273 at *13-*14 (Fed. Cir. 2015).

³ Volterra initially alleged knowledge based on a dissertation of a former employee, Yan Dong, but seems to have dropped those allegations. *See supra* p. 11. Regardless, Mr. Dong's dissertation also does not cite the '408 or '955 patents. Ex. 24 at MAXIM_11040-11046.

Further, coupled inductors are not new technology, and MPS had no reason to think Volterra's portfolio in particular must be examined to enable the use of coupled inductors.

VI. CONCLUSION

MPS respectfully requests this Court grant summary judgment of no inducement and no willfulness with respect to the '408 and '955 patents.

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Dated: November 19, 2021

**CERTIFICATE OF COMPLIANCE WITH STANDING ORDER
REGARDING BRIEFING**

I hereby certify that the foregoing **Defendant Monolithic Power System, Inc.’s Brief in Support of Their Motion for Summary Judgment (No. 2) (No Induced or Willful Infringement for the ’408 AND ’955 Patents)** complies with the typeface requirements and word limits of Paragraph 20(c) of the Scheduling Order entered in this case (D.I. 69). This brief has been prepared in 14-Point Times New Roman and contains 3,065 words, excluding the cover page, table of contents, table of authorities, signature block, and this certificate of compliance. Defendants’ case dispositive motions and *Daubert* motions combined contain 12,500 words or less.

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CERTIFICATE OF SERVICE

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